C. SEYMER.
Billiard-Cue.

No. 199,321. Patented Jan. 15, 1878.

Fig. 2.

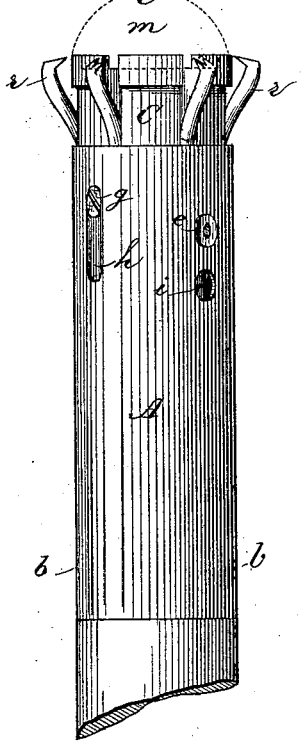


Fig. 1.

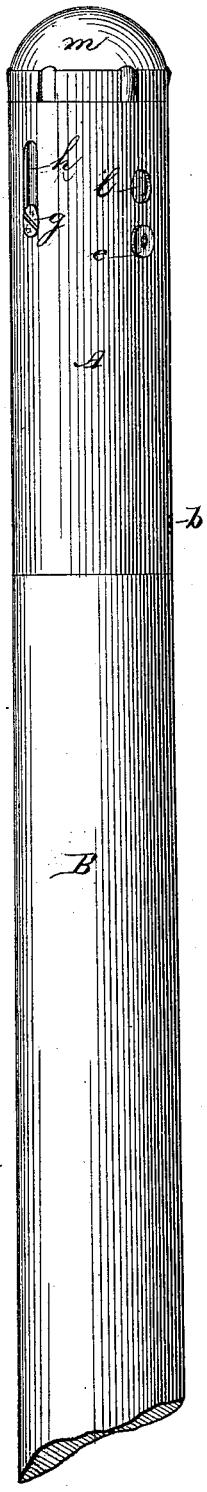


Fig. 3.

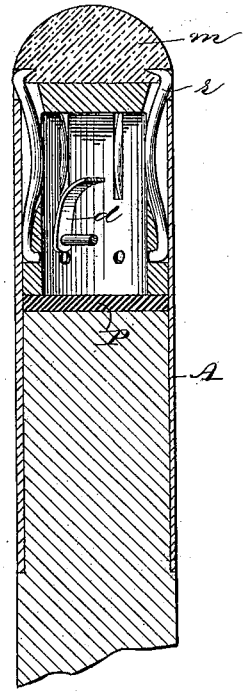


Fig. 5.

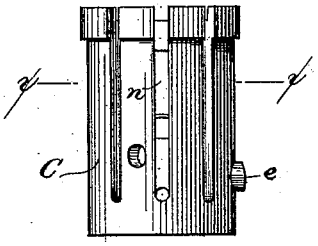


Fig. 6. Fig 7

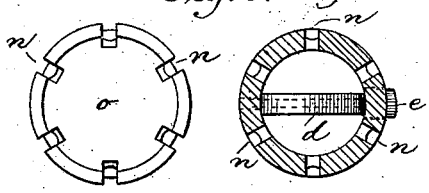
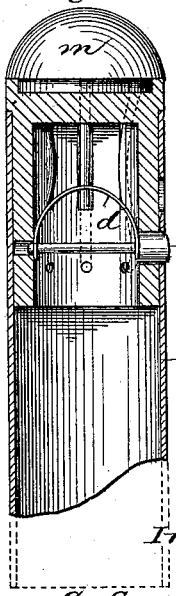


Fig. 4.



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UNITED STATES PATENT OFFICE.

CARL SEYMER, OF BERLIN, GERMANY, ASSIGNOR TO RICHARD HORSTMANN, OF SAME PLACE.

IMPROVEMENT IN BILLIARD-CUES.

Specification forming part of Letters Patent No. **199,321**, dated January 15, 1878; application filed November 20, 1877.

To all whom it may concern:

Be it known that I, CARL SEYMER, of the city of Berlin, Empire of Germany, have invented an Improvement in Billiard-Cues, of which the following is a specification:

This invention consists in an improved means for fastening the tips or leather cushions upon the ends of billiard-cues, whereby the use of glue or other adhesive material is dispensed with, and said tips or cushions may be removed and applied with great facility, all of which is too particularly hereinafter set forth to need further preliminary description.

The accompanying drawings fully illustrate this invention, and show, in Figure 1, in elevation, the end of a billiard-cue having my improved tip-fastener applied thereto. Fig. 2 is a similar view with the tip or cushion removed and the said fastener opened or extended. Fig. 3 is a longitudinal section of Fig. 1; Fig. 4, a similar view, but taken through the fastening-bolt *e*. Fig. 5 shows the sliding shell C removed. Fig. 6 is a plan or top view of the same, and Fig. 7 a cross-section thereof on the line *x x* of Fig. 5.

The leather cushions or tips of billiard-cues are commonly fastened upon their ends by means of glue or a similar composition, which will adhere to both the tip or cushion and the end of the cue.

In practice tips or cushions so fastened in place are frequently displaced by the shock of impact caused in the use of the cues, or, when not so displaced, frequently require to be renewed, either by reason of defects or by wearing out. In such cases the end of the cue requires to be carefully cleaned by removing the dry glue, and a new and even surface prepared for the reception of the new tip or cushion, which, after being properly secured by gluing, must be set away for a day or more to become perfectly dry before it can be used.

This operation of applying new tips, while in itself occupying much time and considerable labor, is a serious inconvenience, inasmuch as it not only deprives one of the use of a particular cue, but necessitates the keeping of a large number of extra cues on hand.

By my invention the cue-tip may be removed and a new one supplied in an inconsiderable space of time, thus enabling a player to continue the use of the same cue, as will now be explained.

The cue B is supplied with a tube or case A, open at both ends, and tapered to correspond with the shape of the cue.

This case A may be made of metal, wood, horn, ivory, bone, vulcanized rubber, or similar material, and is fastened on the end of the cue (which is cut away to form a tenon to receive it) by means of one or more screws, as *b b*, this mode of fastening being adopted as preferable to a screw-joint, for the reason that the latter would soon become spoiled by the shock which the cue receives in its use.

Within this case A a shell, C, made of one of the aforesaid materials, or some other possessing the quality of lightness, is fitted so that it may slide freely, its movements therein being limited by a stop, *g*, which runs in a slot, *h*, cut in the case A, and fixedly held in its innermost or outermost adjustment by means of a spring-bolt, *e*, which enters holes *l i* in said case A. This bolt *e* is guided in its movements by a stem which plays in holes cut in the walls of the shell C, and its actuating-spring *d* embraces said stem, and bears against the head of said bolt and one wall of the case, as in Fig. 4.

The top of the sliding shell C is cut away to form a recess, the bottom *o* and sides of which form a seat for the tip or leather *m*. This shell C is provided with several longitudinal grooves, *n*, which are cut through the walls of the shell, save at the bottom, where they form pivotal seats for arms *r*. These arms *r* are of such form as to provide a jaw or catch at their upper ends, an inwardly-projecting knee in the middle, and a curved bend at their lower ends, by which they are seated in the shell C. Inside of the shell C, and between the projecting knees of the arms *r*, it is preferable to introduce a rubber or similar elastic core, (not shown,) the action of which will be to press said arms outward.

If it is desired to attach a tip or cushion, *m*, to this improved cue, the fastening-bolt *e* is pressed inward by a pointed instrument, so as to release its hold in the hole *i*, whereupon the shell C may be slid outward until the fasten-

ing-bolt engages in the hole *l*, where the said shell will be firmly held. This movement of the shell C frees the arms *r* in such a manner that they may spread apart, as in Fig. 2, and leave the seat for the tip or cushion entirely unobstructed. This spreading movement may be caused by gravitation, or by means of the elastic core above mentioned.

When the tip or cushion *m* is placed in position upon the seat provided for it in the upper end of the sliding shell C, the fastening-bolt *e* is released from the hole *l* and the shell C pressed into the case A until the said bolt *e* engages in the hole *i*, as in Figs. 1, 3, 4, which movement of the shell C will cause the arms *r* to be pressed inwardly and their jawed upper ends to enter and seize the said tip or cushion, and thus securely and firmly retain it in place, as in Fig. 3.

If it is desired to entirely remove the said sliding shell C, it may be done by removing the screw *g*.

In order to lessen the shock of impact, it is desirable to introduce a leather, india-rubber, or similar cushion, P, between the cue-stick B and the said shell C.

What is claimed is—

1. A billiard-cue provided with a mechanical tip-fastening device, consisting, essentially, of a sliding shell, carrying jaws which are automatically spread or extended to receive the tip or cushion, and closed to grasp the same, by the movements of said sliding shell out of and into the case A, all substantially as described.

2. The combination, with a cue-stick, of a sliding shell, C, provided with means for holding a tip, and with devices for securing it either extended from or pressed into contact with the cue-stick, substantially as described.

3. The combination, with the grooved sliding shell C, of the arms *r*, having jawed upper ends, and bent to form knees, substantially as described.

4. The combination, with the sliding shell C and its arms *r*, of the fastening-bolt *e* and case A, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CARL SEYMER.

Witnesses:
OTHMAR LENZ,
ROBT. R. SCHMIDT.